IN THE CLAIMS:

1. (Currently Amended) A method for manufacturing hollow shafts having first and second end portions of greater wall thickness and at least ~~one~~ two intermediate portion of reduced wall thickness, from a tube having constant wall thickness, comprising:

providing a mandrel having diameters stepped over its length, including a first longitudinal section having a smallest first diameter and at least one further longitudinal section having a further larger diameter, thereafter;

reducing the external diameter of a first portion of the tube over the first longitudinal section of the mandrel to produce the first end portion;

reducing the external diameter of at least one first middle portion of the tube over a second longitudinal section of said the at least ~~one~~ two further longitudinal ~~section~~ sections of the mandrel to produce a first intermediate portion of said ~~the~~ at least ~~one~~ two intermediate portions of said hollow shaft, said second longitudinal section having a second diameter which is larger than said first diameter of said first longitudinal section;

reducing the external diameter of at least one second middle portion of the tube over a third longitudinal section of said at least two further longitudinal sections of the mandrel to produce a second intermediate portion of said at least two intermediate portions of said hollow shaft, said third longitudinal section having a third diameter which is larger than said second diameter of said second longitudinal section; and

reducing the external diameter of a further portion of the tube over the first, the second or another longitudinal section of the mandrel to produce the second end portion.

2.-9. (Previously Cancelled)

10. (Previously Presented) The method according to claim 1, wherein the first end portion and one or more intermediate portions of the hollow shaft, having a reduced wall thickness in each case, are produced with an unchanged axial position of the mandrel in relation to the tube.

11. (Previously Presented) The method according to claim 1, wherein the second end portion is produced over the first longitudinal section of the mandrel.

12. (Previously Presented) The method according to claim 10, wherein the second end portion is produced over the first longitudinal section of the mandrel.

13. (Previously Presented) The method according to claim 11, wherein one or more further intermediate portions, each having an increased wall thickness, and the second end portion are each produced with a changed axial position of the mandrel in relation to the tube.

14. (Previously Presented) The method according to claim 12, wherein one or more further intermediate portions, each having an increased wall thickness, and the second end portion are each produced with a changed axial position of the mandrel in relation to the tube.

15. (Previously Presented) The method according to claim 11, wherein at least two intermediate portions, alternately having first increased, then reduced wall thickness, are produced with an unchanged axial position of the mandrel in relation to the tube in each case.

16. (Previously Presented) The method according to claim 12, wherein at least two intermediate portions, alternately having first increased, then reduced wall thickness, are produced with an unchanged axial position of the mandrel in relation to the tube in each case.

17. (Previously Presented) The method according to claim 1, wherein the steps of reducing comprise cold drawing using a matrix, through which the

tube is guided from one tube end, and wherein the tube and mandrel are on one side and the matrix is on the other side moving axially in relation thereto.

18. (Previously Presented) The method according to claim 11, wherein the steps of reducing comprise cold drawing using a matrix, through which the tube is guided from one tube end, and wherein the tube and mandrel are on one side and the matrix is on the other side moving axially in relation thereto.

19. (Previously Presented) The method according to claim 13, wherein the steps of reducing comprise cold drawing using a matrix, through which the tube is guided from one tube end, and wherein the tube and mandrel are on one side and the matrix is on the other side moving axially in relation thereto.

20. (Previously Presented) The method according to claim 15, wherein the steps of reducing comprise cold drawing using a matrix, through which the tube is guided from one tube end, and wherein the tube and mandrel are on one side and the matrix is on the other side moving axially in relation thereto.

21. (Previously Presented) The method according to one claim 1, wherein the external diameter of the tube is reduced through swaging, roll bending, or rolling.

22. (Previously Presented) The method according to one claim 11, wherein the external diameter of the tube is reduced through swaging, roll bending, or rolling.

23. (Previously Presented) The method according to claim 1, wherein transition areas between end portions and intermediate portions, and transition areas between intermediate portions of different wall thicknesses are formed by internal conical surfaces having a cone opening angle between 5° and 45°.

24. (Previously Presented) The method according to claim 11, wherein transition areas between end portions and intermediate portions, and transition areas between intermediate portions of different wall thicknesses are formed by internal conical surfaces having a cone opening angle between 5° and 45°.

25. (Previously Presented) The method according to claim 13, wherein transition areas between end portions and intermediate portions, and transition areas between intermediate portions of different wall thicknesses are formed by internal conical surfaces having a cone opening angle between 5° and 45°.

26. (Previously Presented) The method according to claim 15, wherein transition areas between end portions and intermediate portions, and transition areas between intermediate portions of different wall thicknesses are formed by internal conical surfaces having a cone opening angle between 5° and 45°.

27. (Previously Presented) The method according to claim 17, wherein transition areas between end portions and intermediate portions, and transition areas between intermediate portions of different wall thicknesses are formed by internal conical surfaces having a cone opening angle between 5° and 45°.

28. (Previously Presented) The method according to claim 1, wherein a wall thickness ratio between the end portions and the intermediate portion of smallest wall thickness is greater than 1.6.

29. (Previously Presented) The method according to claim 11, wherein a wall thickness ratio between the end portions and the intermediate portion of smallest wall thickness is greater than 1.6.